

REMARKS

Claims 1 and 4-33 are presented for the Examiner's review and consideration. In this response, claims 1, 15 and 26 have been amended. Applicant believes the claim amendments and the accompanying remarks herein serve to clarify the present invention and are independent of patentability. No new matter has been added.

Rejections of Independent Claim 1 and Related Dependent Claims

Claims 1 and 4-7 were rejected under 35 U.S.C. §102(b) as being anticipated by Waugh et al. (US Pat. 3,869,731) ("Waugh"). For reasons set forth below, Applicant respectfully submits that this rejection should be withdrawn.

Waugh has been discussed at length in the Response to the prior Office Action. In the interest of brevity, reference is made thereto. As previously noted, Waugh does not show initiating a cut in the bone while guiding the cutting tool along a guide surface of the guide member to form a cut surface and completing the cut in the bone while guiding the cutting tool along the cut surface.

In contrast, the present invention contemplates down sized instrumentation may have cutting tool guide surfaces of reduced length. (¶[0014]). The length of the cutting tool guide surfaces may be less than the length of a cut to be made on a bone. (Id). A cut on a bone in the patient may be completed using previously cut surfaces as a guide for the cutting tool. (Id).

During completion of the anterior femur (skim) cut, previously cut surfaces on the end portion 124 of the femur 126 are used to guide the saw blade 170 (FIG. 13). (¶[0142]). Thus, an initial portion of the anterior skim cut is made on the distal end portion 124 of the femur 126 while the saw blade 170 is moved along one or more guide surfaces on the anterior resection guide 138. (Id). After the anterior resection guide 138 has been disconnected from the femoral alignment guide 134, the saw blade 170 is positioned in engagement with the cut surfaces on the distal end portion 124 of the femur 126. (Id). This is accomplished by inserting the saw blade 170 into a slot or saw kerf formed in the distal end portion 124 of the femur during the initial portion of the anterior skim cut. (Id).

As such, the present invention discloses a reduced size cutting guide that is positioned against the bone, initiating the cut along the guide surface, and completing a skim cut while guiding the

tool along the cut surface. The width of the completed cut is wider than the distance between the first and second condyles.

In order to clarify the present invention, claim 1 now recites the steps of cutting a bone of the knee with a cutting tool while the distal portion of the patient's leg is suspended from the knee, said step of cutting includes initiating a cut in the bone while guiding the cutting tool along a guide surface of the guide member to form a cut surface, removing the guide member from against the bone, and then completing a skim cut, while guiding the cutting tool along the cut surface. Claim 1 further recites that the skim cut has a dimension in a direction parallel to a central axis of the guide surface which is greater than the distance between opposite ends of the guide member.

Accordingly, Applicant respectfully submits that claim 1 is patentable over Waugh. As claims 4-7 depend from claim 1, these dependent claims necessarily include all the elements of their base claim. Accordingly, applicant respectfully submits that the dependent claims are allowable over Waugh at least for the same reasons.

With respect to the dependent claims of claim 1, claim 8 was rejected under 35 U.S.C. §103(a) as being unpatentable over Waugh in view of Sherwin (US Pat. 3,750,652) ("Sherwin"). Claims 9-10, and 13-14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Waugh in view of Shapiro (US Pat. 4,565,192) ("Shapiro"). Claims 9-12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Waugh in view of Waddell (US Pat. 6,174,314) ("Waddell").

As described above, Applicant submits that claim 1 is patentable over Waugh. Applicant further submits that Sherwin, Shapiro, Waddell, and Techiera do not correct the deficiencies of Waugh with respect to claim 1. As claims 8-14 depend from claim 1, these dependent claims necessarily include all the elements of their base claim. Accordingly, Applicant respectfully submits that the dependent claims are allowable over Waugh in view of the cited references at least for the same reasons.

Rejections of Independent Claim 15 and Related Dependent Claims

Claims 15-19 and 21-25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Techiera (US Pat. 6,106,529) (“Techiera”) in view of Waugh. For reasons set forth below, Applicant respectfully submits that this rejection should be withdrawn.

Techiera discloses a resection alignment tool, including a drill guide or saw blade guide. The tool may be adapted as a saw cut guide to position a slot or other cut feature. Techiera does not show how the tool may actually be used to make a cut. Techiera does not disclose initiating a cut in the bone while guiding the cutting tool along the guide surface to form a cut surface. Techiera further does not disclose continuing the cut in the bone while guiding the cutting tool along the cut surface. Thus, Techiera is like Waugh in this regard.

In addition, Techiera does not disclose positioning a first portion of a total knee replacement against a cut bone, and subsequently positioning a second portion of the total knee replacement against the cut bone, and connecting the portions after both have been positioned against the cut bone. There is further no disclosure in Techiera for angularly disposing the cutting tool along the guide surface in order to cut a section of the bone wider than the width of the guide. Although Waugh is cited as teaching a two piece implant, Applicant respectfully submits that this is incorrect. In particular, the present claims recite that the first and second portions (which are subsequently connected together) are positioned against the cut bone, i.e. the same bone, which, in the case of the total knee replacement would be either the tibia or the femur. Connecting one implant to a tibia and connecting another implant to the femur (which is what Waugh does) does not anticipate or render obvious the invention as claimed.

In contrast, the present invention discloses inserting a total knee replacement where a first and subsequently a second portion of the implant is positioned on the bone, then connected once both portions have been positioned, thus enabling an implant that is larger than the incision. To further aid in reducing the size of the incision, the cutting tool is angularly disposed along the guide surface, so that a section of the bone wider than the width of the guide may be cut. Angularly displacing the cutting tool thus decreases the size of the cut to be completed along the cut surface. Further, the step facilitates mounting a reduced size cutting guide laterally to a line defining the longitudinal axis of the bone to be cut, cooperative with a laterally formed incision.

Claim 15 now specifies, *inter alia*, that after initiating a cut in the bone, the guide member is removed from against the bone of the joint and the continuing of the cut in the bone while guiding the cutting tool along the cut surface is performed after the guide member is removed.

Accordingly, Applicant respectfully submits that claim 15 is patentable over Techiera in view of Waugh. As claims 16-19 and 21-25 depend from claim 15, these dependent claims necessarily include all the elements of the base claim. Accordingly, Applicant respectfully submits that the dependent claims are allowable over Techiera in view of Waugh at least for the same reasons.

Claim 20, the other claim depending from claim 15, was rejected as being unpatentable over Techiera in view of Waugh and Sherwin. As described above, Applicant submits that claim 15 is patentable over the combination of Techiera and Waugh. Applicant further submits that Sherwin does not correct the deficiencies of Techiera and Waugh with respect to claim 15. As claim 20 depends from claim 15, this dependent claim necessarily includes all the elements of its base claim. Accordingly, Applicant respectfully submits that claim 20 is allowable over the cited combination at least for the same reasons.

Rejections of Independent Claim 26 and Related Dependent Claims

Claims 26-33 were rejected under 35 U.S.C. §103(a) as being unpatentable over Techiera in view of U.S. Patent No. 4,979,949 to Matsen, III et al. (“Matsen”). For reasons set forth below, Applicant respectfully submits that this rejection should be withdrawn.

The sole reason Matsen was cited was that “Techiera discloses the claimed invention except for the method including the step of angularly disposing the cutting tool along the guide surface in order to cut a section of the bone wider than the width of the guide.” Matsen is asserted to disclose a method “in which a saw blade is angled with respect to a guide surface . . . so that the guide can be used near a bone end in a manner that minimally interfaces with the overall view of the bone.”

Even assuming *arguendo*, that this is correct, the combination of Techiera and Matsen still does not teach or suggest the invention as recited in claim 26. Specifically, claim 26, analogous to claims 1 and 15, specifies that a cut in bone is initiated while guiding the cutting tool along the guide surface to form a cut surface; the cut is continued while guiding the cutting tool along the cut

surface; and the guide member is removed from against the bone of the knee joint prior to said step of continuing the cut in the bone. As discussed above, Techiera does not disclose these features, and Applicant submits that these features are also absent from Matsen. Thus, the combination of Techiera and Matsen cannot make claim 26 unpatentable.

Accordingly, Applicant respectfully submits that claim 26 is patentable over Techiera and Matsen. As claims 27-33 depend from claim 26, these dependent claims necessarily include all the elements of their base claim. Accordingly, applicant respectfully submits that the dependent claims are allowable over the cited combination at least for the same reasons.

Conclusion

In light of the foregoing remarks, this application is now in condition for allowance and early passage of this case to issue is respectfully requested.

If any questions remain regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

A fee for a Request for Continued Examination (RCE) is believed to be due and is submitted herewith via credit card. However, please charge any required fee (or credit overpayments) to the Deposit Account of the undersigned, Account No. 503410 (Docket No. 780-A04-012-1A).

Respectfully submitted,



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